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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/733,910 12/11/2003 Joshua N. Alperin  
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EXAMINER

BARNES, CRYSTAL J

ART UNIT

PAPER NUMBER

2121

DATE MAILED: 05/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/733,910

Applicant(s)

ALPERIN ET AL.

Examiner

Crystal J. Barnes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11, 16 and 18-22 is/are rejected.
- 7) ☒ Claim(s) 1-10, 12-15 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>26 Feb. '04</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. The following is an initial Office Action upon examination of the above-identified application on the merits. Claims 1-22 are pending in this application.

#### *Information Disclosure Statement*

2. The examiner has considered the information disclosure statement (IDS) submitted on 26 February 2004.

#### *Claim Objections*

3. Claim 1 is objected to because of the following informalities: "one or component" on page 9 line 14 is unclear. Appropriate correction is required.

#### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the

invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 11 is rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,643,128 B2 to Chu et al.

As per claim 11, the Chu et al. reference discloses a method for managing information handling system temperature control, the method comprising: detecting a configuration (see column 5 lines 14-19, "estimating power supply load") of the information handling system (see column 4 lines 29-33, "computer system 10"); looking up (see column 7 lines 31-36, "look-up table") cooling system parameters ("temperature") associated with the configuration ("power load") from a table ("look-up table") stored on the information handling system (see column 6 lines 3-9, "computer system 10"); configuring a cooling system (see column 5 lines 58-62, "cooling fan 18") of the information handling system ("computer system 10") with the cooling system parameters (see column 5 lines 62-67, "preferred operational setting"); and managing the temperature (see column 6 lines 53-56, "internal chassis temperature") of the information handling system ("computer system 10") with the cooling system ("cooling fan 18").

6. Claims 18-22 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,926,386 to Ott et al.

As per claim 18, the Ott et al. reference discloses a system for cooling an information handling system, the system comprising: a cooling fan (see column 2 lines 52-61, "cooling fans 110, 136") operable to couple to an information handling system ("computer 100") aligned to provide cooling air ("force air, cool") for cooling one or more components ("microprocessor and memory modules 118, input/output and/or expansion cards 134") of the information handling system ("computer 100"); a fan controller (see column 3 lines 6-9, "cooling fan speed controller") interfaced with the cooling fan ("cooling fans 110, 136") and operable to obtain temperature information (see column 3 line 10, "sensed temperature") associated with the information handling system ("computer 100") and to control cooling fan speed (see column 3 lines 11-15, "fan speed") according to an operating curve (see column 3 line 10, "thermal ramp curves 800, 802, 804"); and an operating curve selector (see column 4 lines 36-39, "firmware controls 140") interfaced with the fan controller ("cooling fan speed controller") and operable to obtain component identification information ("fan 110, 136") from the one or more components ("fan 110, 136") and to select an operating curve ("thermal ramp curves 800, 802, 804") associated with

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the component identification information ("fan 110, 136") for use by the fan controller ("cooling fan speed controller").

As per claim 19, the Ott et al. reference discloses the component (see column 2 lines 54-58, "component") comprises a central processing unit ("microprocessor and memory modules 118").

As per claim 20, the Ott et al. reference discloses the component ("component") comprises a chassis (see column 2 lines 52-54, "computer 100").

As per claim 21, the Ott et al. reference discloses further comprising an operating curve ("thermal ramp curves 800, 802, 804") look-up table (see column 4 lines 36-39, "separate fan speed table") having plural operating curves ("thermal ramp curves 800, 802, 804"), each operating curve ("thermal ramp curves 800, 802, 804") associated with one or more sets of component identification information ("each fan 110, 136").

As per claim 22, the Ott et al. reference discloses the operating curve selector ("firmware controls 140") is further operable to calculate an operating curve ("thermal ramp curves 800, 802, 804") from thermal characteristics (see column 3 line 10, "temperature") associated with the identified components

("microprocessor and memory modules 118, input/output and/or expansion cards 134").

*Claim Rejections - 35 USC § 103*

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,643,128 B2 to Chu et al. in view of USPN 5,926,386 to Ott et al.

As per claim 16, the Chu et al. reference discloses configuring a cooling system ("cooling fan 18") further comprises: loading a fan controller (see column 7 lines 62-65, "control device 22") with cooling system parameters ("preferred operational setting") to operate the fan ("cooling fan 18") within a performance curve correlating sensed temperatures and fan speed.

The Chu et al. reference does not expressly disclose a performance curve correlating sensed temperatures and fan speed.

The Ott et al. reference discloses

(see column 3 lines 6-15, "The cooling fan speed controller shown within the computer 100 ... is designed to independently vary the voltage applied to each of the computer's cooling fans 110, 136. Voltage is varied in response to a sensed temperature, as is illustrated in the thermal ramp curves 800, 802, 804 ... As the sensed temperature increases beyond a given threshold 812, the voltage applied to each fan 110, 136 is increased, and consequently, the speed of each fan 110, 136 is increased. Likewise, a decrease in the sensed temperature will result in a decrease in fan speed.")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the control device taught by the Chu et al. reference to store or be programmed to include thermal ramp curves as illustrated by the Ott et al. reference.

One of ordinary skill in the art would have been motivated to modify the control device to store or be programmed to include thermal ramp curves to illustrate that voltage applied to the cooling fan is varied in response to a sensed temperature.



*Allowable Subject Matter*

9. Claims 1-10 would be allowable if rewritten or amended to overcome the objection set forth in this Office action.
10. Claims 12-15 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Conclusion*

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to temperature responsive control systems in general:

USPN 6,977,812 B2 to Sasaki

USPN 6,927,978 B2 to Arai et al.

USPN 6,283,380 B1 to Nakanishi et al.

USPN 6,155,341 to Thompson et al.

USPN 6,082,623 to Chang

USPN 5,568,732 to Isshiki et al.

US Pub. No. 2006/0016901 A1 to Beitelmal et al.

US Pub. No. 2005/0244263 A1 to Hardt et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Crystal J. Barnes whose telephone number is 571.272.3679. The examiner can normally be reached on Monday-Friday alternate Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 571.272.3687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



CJB

27 April 2006